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## THE TRANSPORTATION OF MAIL—A VALUATION OF DATA.

WHILE the Joint Congressional Commission on Postal Affairs was taking testimony in Washington, February last, Mr. Finley Acker appeared before it and presented on behalf of the National Board of Trade a preamble and resolution in which it is contended that the existing law fixing the compensation the railroads receive for carrying the mail "requires radical modification." As this document has been very widely circulated<sup>1</sup> and as it contains, succinctly presented, practically all the arguments showing that the compensation given the railroads is excessive, it will be carefully examined. Attention will, in the main, be directed to the data. A satisfactory review of the methods employed to ascertain what would be fair compensation to the railways would extend this article beyond reasonable limits. The data will now be valued and they will be taken up in the order, or about the order, of their importance.

The third section of the preamble presented by Mr. Acker in behalf of the National Board of Trade to the Commission on Postal Affairs reads as follows: ". . . the post-office statistics show that the rate paid to the railroads for hauling mail matter averages forty (40) dollars per ton per hundred miles. . ." In explaining the sources of his information he says "This state-

<sup>1</sup>The way was prepared for the preamble and resolution by a long report on the subject of railway mail pay by a committee of which Mr. Acker was chairman. This report and the preamble and resolution received wide distribution through the printed proceedings of the National Board of Trade and in pamphlet form. After Mr. Acker appeared before the Commission on Postal Affairs these documents together with his testimony were sent all over the country; first as a part of the testimony taken by the commission, then as a part of the *Congressional Record* (LV Congress, third session, Vol. XXXII p. 2794 *et seq.*) and finally as *Senate Document No. 130*, LV Congress, third session.

<sup>2</sup>Testimony taken by the Joint Commission of Congress to investigate the postal service under the act of Congress approved June 13, 1898, p. 1080. In the future when I have occasion to cite this document I shall refer to it simply as "Testimony" instead of by its full title.

ment is verified by the testimony of the General Superintendent of the Railway Mail Service on page 134 of *Senate Report No. 991*, in which it was shown that \$34,754,742.69 was paid to the railroads for carrying 528,389,069 pounds of matter an average distance of 328 miles, thereby showing the cost of hauling one pound of mail a distance of 328 miles was 6.58 cents, or \$131.60 per ton. By dividing \$131.60 by 328 miles we have 40 cents as the cost per ton per mile, or \$40 per ton per 100 miles."<sup>1</sup>

As practically the whole of Mr. Acker's argument is based on the contention that the railways receive \$40 per ton per 100 miles or an average of 6.58 cents per pound for an average distance of 328 miles, these statements will be very carefully examined. The possession of what facts do they presuppose? Obviously to make them the following data must have been at hand: (1) the amount of matter carried by the railroads; (2) the average distance it is carried, and (3) the sums paid the railroads for rendering the service.

Attention is first invited to the amount of matter in the aggregate actually carried by the railroads. That is, how many pounds of mail, each piece counting but once, are carried by the railroads in the course of a year? The post-office officials cannot give this information. They do not possess it. They do not even know with any degree of accuracy the amount of mail matter that passes through the mails in a year.

In 1886 Postmaster-General Vilas said, in comparing the growth of our mail matter with that of other countries, "No statistical account is maintained in the United States of the quantity in weight or number of pieces, of our domestic mails."<sup>2</sup> In 1887 we find this statement in the *Report of the Postmaster-General*: "As I before observed, it is difficult to state *with any degree of exactness* the annual tonnage of the United States mail carried on all the railroads in the United States."<sup>3</sup> Here it is again expressly acknowledged that no exact information was at

<sup>1</sup> Testimony, pp. 1082, 1083.

<sup>2</sup> *Report of the Postmaster-General*, 1886, p. 4.

<sup>3</sup> *Ibid.* 1887, p. 399.

hand of the weight of the mail carried by the railroads. When Mr. Wanamaker became postmaster-general he was very much hampered by the lack of trustworthy information of the volume of the business done by the department. He made the first attempt to ascertain the count and weight of the mail. An account of what he did will be inserted in his own words:

For important statistical purposes the department has been at a loss for reliable data as to the number of pieces and *weight* of matter passing through the mails and the amount of revenue derived from each of the several classes of matter. For reasons involving the quickest possible dispatch of the mails it is impractical to take a continuous account of the matter mailed. But a count of mail matter was ordered at all post-offices in the country for the seven consecutive days beginning at six o'clock A.M. on the 5th of May, and ending at six o'clock A.M. on the 12th of May. . . . The instructions enjoined the utmost care upon the postmasters in making accurate reports. The week selected was believed to be a fairly average period upon which to estimate the total business for the year.<sup>1</sup>

Upon the basis of this weighing the weight of the whole year was estimated. Since 1890 no actual test covering the whole country has been made of the weight of the matter passing through the mails. The test made by Mr. Wanamaker in 1890 for a single week is still the basis of the estimates made of the amount of mail passing through the department. At this point two questions naturally arise: (1) Was the week selected an average week? (2) Was the test well conceived and thoroughly executed? The week was not an average one but for reasons that will appear later it is unnecessary to discuss this point.

Was the test well planned and thoroughly executed? It was not well planned, for it did not include the mail received from foreign lands.<sup>2</sup> The volume of this matter is considerable, and as a portion of it is hauled from the Atlantic to the Pacific, it should not be omitted. Even now there is no record kept of the weight of the mail received from foreign countries except that of the closed mail destined for countries beyond the United States, so it is impossible to correct the Wanamaker test. If we knew

<sup>1</sup> *Report of the Postmaster-General*, 1890, p. 50.

<sup>2</sup> *Ibid.* pp. 51, 52.

the quantity of mail sent abroad we should have something to guide us in estimating the amount received from abroad ; but as only a partial record is kept of the mail sent to foreign countries,<sup>1</sup> we are deprived of even this basis of computation.

Was the test well executed ? By the testimony of General A. D. Hazen, who supervised the Wanamaker test, it is made clear that the weighing was very unsatisfactory, and that the results of the test were used only to a very limited extent.<sup>2</sup> After the test was completed it was found that the revenue of the department lagged far behind what the amount of matter the test showed was handled should have yielded. To make the weight and revenue check, the weights were altogether rejected or were revised. As the department already possessed statistics covering the weight of the paid second-class matter, the weight ascertained by the test was entirely discarded. The weight of second-class matter mailed free in the county of publication was obtained from a test made some years before whereby it was found that the free-county matter was 15 per cent. of the second-class paid matter.<sup>3</sup> The weight of the first,<sup>4</sup> third, and fourth-class matter was, after the Procrustean fashion, lopped off so that the weight accorded with the revenue. The weights ascertained by the Wanamaker test were only used as a guide in determining the proportion in which the revenue should be divided among the three kinds of matter. General Hazen testified that the weight ascertained by the Wanamaker test exceeded the revenue by about 10 per cent.<sup>5</sup> Mr. Madison Davis, who, as chief clerk to Mr. Hazen, had general oversight of the test, testified that the weight of the first, third, and fourth-class matter was reduced by 10, 15, 20, or 25 per cent., but he did not know by exactly how much.<sup>6</sup>

<sup>1</sup> No record is kept of the amount of mail sent to Canada and Mexico by rail.

<sup>2</sup> Testimony, p. 703 *et seq.*

<sup>3</sup> Testimony, pp. 708, 713.

<sup>4</sup> The number and weight of postal cards was made to agree with the department's record of issues.—Testimony, p. 668.

<sup>5</sup> Testimony, p. 712.

<sup>6</sup> Testimony, p. 669.

It is apparent from the testimony of General Hazen and Mr. Davis, the two men who had charge of the Wanamaker test, that its results are merely a rough approximation. This was conceded by General Hazen, for when pressed as to the accuracy of the results obtained, he said: "This tabulation does not purport to be anything more than an estimate."<sup>1</sup>

To sum up, the weight ascertained by the Wanamaker experiment is unsatisfactory as a basis for computing the weight carried by the railroads for the following reasons: (1) It does not include the weight of matter received from foreign lands; (2) the weight was made to conform to the revenue, and thus any weight carried which was not paid for was squeezed out; (3) in making the weight balance with the revenue the weight of the equipment (pouches, etc.), was wholly excluded, and therefore the ascertained weight was about 10 per cent. less than that carried by the railroads;<sup>2</sup> (4) the weight of such miscellaneous articles as roller-top desks, iron safes, carpets, astronomical instruments, train loads of gold sent across the continent, census blanks, etc., sent through the mail to accommodate the other departments of the government were not included. A fair allowance for these items would swell the aggregate weight of the mail by many million pounds. The results of the Wanamaker test may be unsatisfactory for still another reason. The distribution of the revenue among first, third, and fourth-class matter was determined by the weights obtained by the Wanamaker weighings. In other words, although the actual results obtained by the weighing were thrown out because they were found to be incorrect, it was held that the test accurately showed the *relative* weight of the different classes of matter, and therefore afforded a correct basis upon which to distribute the revenue of the department. This may or may not have been true. If it was not true, and the weight of the first-class matter was

<sup>1</sup> Testimony, p. 714.

<sup>2</sup> The weight of the equipment represents about 9.54 per cent. of the whole weight.—James E. White, General Superintendent Railway Mail Service; *Senate Report No. 991*, p. 135, LV Congress, second session.

exaggerated more than that of the other classes, then too much revenue was assigned to first-class matter, with the issue that the final result showed less weight handled by the department than was really handled for a given revenue assigned to first-class matter would mean fewer pounds of mail handled than if assigned to third or fourth-class matter.

Now let us examine Mr. Acker's statement of the weight of the mail carried by the railroads. He says "that \$34,754,742.69 was paid to the railroads for carrying 528,389,069 pounds of matter an average distance of 328 miles." This weight does not include all the mail handled by the Post-Office Department during the year 1897, and Mr. Acker should have known this, for the inaccuracy of the figures he accepts had been pointed out many times. The weight used by Mr. Acker in his calculations does not include government franked matter. The total weight of the mail handled during 1897, according to the table furnished the Commission on Postal Affairs by Mr. Davis, was 583,555,552 pounds,<sup>1</sup> and according to Mr. Loud's statements, 607 million pounds.<sup>2</sup> But for reasons that have just been pointed out, even these sums do not include the entire weight handled. The mail received from abroad, which we shall say was ten million pounds, must be added, and also 56,625,000 pounds to cover the weight of the equipment.<sup>3</sup> If these additions be made and the figures of Mr. Davis be taken (they are less than Mr. Loud's) we find that approximately 650 million pounds of mail were carried, instead of 528,389,069.

But some deductions must be made from this amount, for the total weight handled by the Post-Office Department is not transported by the railroads. Some of the foreign matter and most of the local matter never reaches the railroads at all. A portion of the matter carried by star routes and steamboats is not

<sup>1</sup> Testimony, p. 666.

<sup>2</sup> *Congressional Record*, LV Congress, second session, p. 3328.

<sup>3</sup> Even now we do not have all the weight carried, for we have made no additions for several factors already pointed out which are very difficult to estimate. Several million more pounds should without doubt be added.

transported during any portion of its journey by rail. But these amounts are probably not so large as they are generally stated to be. Very likely less than 10 per cent., or, say, one million pounds, of the mail received from abroad is never conveyed by railroad. An allowance of 10 per cent. seems very liberal, for the foreign mail of our great Atlantic seaports, for the most part, comes to New York and is then conveyed by railroad to its destination. The local matter not transported by railroad is almost wholly confined to first-class and free-county matter. But even some of this local matter is transported by rail, for the suburban trains are now largely used in sending mail to the substations of large cities. Very little of the third-class and practically none of the paid second-class and of the fourth-class and of the government franked matter is local matter. A deduction, therefore, of 30 million pounds for local matter that does not reach a railroad would be very liberal. It is very difficult to estimate the amount of mail carried by steamboats and star routes that is not carried through some portion of its journey by railroad. But it is safe to say that the volume of this matter is very small indeed. The steamboat routes are very few in number, and the "star" mileage is now almost wholly made up of short stubs connecting railway stations with country post-offices. Practically none of the second-class paid matter and of the third and fourth-class and of the government franked matter is carried over the whole of its journey by steamboats and the conveyances used on the star routes. It therefore seems probable that not over 15 million pounds of matter begin and end their journey on steam-boats and star routes.

To sum up, we have, say, one million pounds of foreign mail, 30 million pounds of local matter, and 15 million pounds of mail carried by steamboats and star routes, or a total of 46 million pounds that is not carried through any portion of its journey by the railroads, and must therefore be deducted from the total volume of matter (650 million pounds) handled by the Post-Office Department to obtain the weight transported by the railroads. This will leave 604 million pounds of mail that are

transported by the railroads, or 75,610,931 pounds more than Mr. Acker gives them credit for carrying.<sup>1</sup>

In all his computations of the rate of pay received by the railroads for carrying the mail Mr. Acker assumes that the average distance the mail is carried is 328 miles as was announced by the Post-Office Department. The statements of the post-office officials of the average distance mail is carried are, however, far more unsatisfactory than their statements of the total weight of the mail handled. So far as I can discover, but one serious attempt has been made to ascertain the average distance each pound of mail is carried, and that was limited in scope and of short duration. In 1876 Postmaster-General Jewell, in advocating graduated rates of postage, on the basis of distance, to apply to certain kinds of mail matter, said:

In order to arrive at any distinct conclusion regarding the rates that should prevail for the different distances, it is necessary to have the different proportions of mail destined for different distances. That their weight might be had, a report was asked for from a number of the largest offices in the country, giving the weight of the different classes of mail going to different states during three days, and the distances to each and all states were averaged.<sup>2</sup>

This computation showed that the average distance the mail was then carried was 813.5 miles. No other test equally thorough has since been made. In 1889 Postmaster-General Wanamaker made a test in forty offices,<sup>3</sup> and found that the average distance each piece of mail was carried was 442 miles. A glance, however, at the following table,<sup>4</sup> which presents a summary of the results of the forty offices, will show that the average distance each pound was hauled was much greater than 442 miles. This follows from the fact that this is a weighted average on the basis of the pieces handled, while what is wanted is a weighted average on the basis of the pounds handled. The

<sup>1</sup> It must not be forgotten that these figures are only my estimates.

<sup>2</sup> *Senate Miscellaneous Document No. 51*, XLIV Congress, first session.

<sup>3</sup> His experiment was tried in ten of the principal offices of each of the four classes.

<sup>4</sup> *Report of the Postmaster-General*, 1889, p. 90.

table shows that of the total 360,663 pounds handled, the average distance that each piece of the 242,447 pounds of third-class matter was carried was 558 miles, and that the average distance that each piece of the 42,891 pounds of fourth-class matter was carried was 599 miles. The table also shows that the average distance the 3,382,571 letters were carried was but 386 miles, and the average distance the 528,076 postal cards were carried was only 339 miles. In brief, the matter of numerous pieces was short-distance mail, and therefore a weighted average based upon pieces would show a smaller average distance than one based upon pounds.

#### RECAPITULATION OF THE FORTY OFFICES.

	Number of pieces	Number of pounds	Average num- ber of miles each piece was carried
Letters .....	3,382,571	69,849	386
Postal cards .....	528,076	2,772	339
Wrapped parcels under seal at letter rate..	8,907	2,776	430
Third-class matter .....	1,962,925	242,447	558
Fourth-class matter .....	101,326	42,819	599
	5,983,905	360,663	442

This test was faulty for still other reasons—it does not include second-class and franked matter.<sup>1</sup> If the table were still of any value to show the average distance each pound of mail is carried, these omissions, it must be admitted, completely destroy it, for second-class matter is long-distance mail, and almost equals in weight all the other classes combined. Now, if the weight of the second-class matter was about equal to that of all other matter combined, and if almost the whole of it was long-distance matter, and this is generally conceded, for the short-distance second-class matter is largely carried by express companies and fast freight trains, had this class been included in the test, it would have greatly raised the average distance each pound of mail was carried.

<sup>1</sup> *Ibid.*, pp. 32, 90.

As has been stated, franked matter was also not included in the test. This, even to a greater extent than second-class mail, is upon the whole long distance business. Here the general rule that men communicate most with men near at hand does not hold good, and for the obvious reason that the friends of each congressman are in his own district.

One attempt to ascertain the average distance each pound of mail is carried still remains for examination. This differs radically from the others. It does not rest upon actual observation, but on a series of computations based upon estimates. In the language of its author it is as follows:

An estimate by the Third Assistant Postmaster-General gives an average weight per day of 1,447,671 pounds of mail, which added to an estimated weight of 153,729 pounds<sup>1</sup> of equipment, amounts to 1,601,400 pounds.

The railway adjustment division gives, as carried by railroad lines per day, 7,846,851 pounds. Therefore 1,601,400 pounds is reweighed as many times as it is contained in 7,846,851 pounds—4.9—which must necessarily be the average number of routes a pound of mail passes over before it reaches destination.

\* \* \* \* \*

There are 2587 railroad routes in the United States, and the total number of miles of these routes is 173,256. Therefore the average length of a route is 173,256.14 miles divided by 2587 routes or 66.97 miles.

As above stated, one pound of mail is carried over 4.9 routes and each route averages 66.97 miles, which makes 328 miles as the average haul of a pound of mail.”<sup>2</sup>

Let us examine first the data and then the method by which this result was obtained. Attention has already been directed to the fact that the Post-Office Department has no data that can be regarded as satisfactory of the total amount of mail matter handled each day; and therefore it was very properly stated, in the demonstration, that it was estimated that the average weight handled per day was 1,601,400 pounds. It was also said in the demonstration that “the railway adjustment division gives, as carried by the railroad lines per day, 7,846,851 pounds.” This

<sup>1</sup> It should be noted that a little more than 10 per cent. is here added for the weight of the equipment.

<sup>2</sup> *Senate Report No. 991*, p. 146, LV Congress, second session.

sum does not represent the total amount of mail carried by the railroads. The weight actually carried by all the railroads is considerably in excess of the amounts announced by the department. The departmental statements of weight carried are always those ascertained at the previous weighings, which may have been made more than four years before, and therefore these statements generally are far short of the weight actually carried. Now, as the premises of the demonstration cannot be accepted, the deduction that on the average each pound of mail is carried over 4.9 routes cannot be accepted. The second average is above criticism; the department has actual information of the number of post routes and their mileage, and can therefore obtain the average length of the routes.

The data used in ascertaining the average 328 miles have now been examined and the method of finding the average distance each pound of mail is carried may now be considered. The method cannot be accepted. And for the very obvious reason that the relative importance of the routes, from the standpoint of the weight carried, is absolutely neglected. It is generally known that upon the whole the short routes are the light routes, and the long routes are the heavy routes, and that therefore the value of the long routes is increased by reason of the heavy mails that pass over them, while that of the short routes is diminished because of the light mails that pass over them.

All data necessary for the employment of the proper method of determining the average distance each pound of mail is carried were at hand.<sup>1</sup> The number of pounds of mail matter (each piece counting but once) handled in the mails each day, and the average number of pounds of mail carried over the whole length of each railroad postal route in the United States each day, and the length of these routes, were all the facts needed. With the length of the routes and the average number of pounds carried over the whole length of each route each day, the total number

<sup>1</sup> Some of these data have been criticised, but as they were all used in determining the average distance mail is carried by the faulty method there appears to be no reason why they should not have been employed in determining the average distance by the proper method.

of miles one pound was carried could be obtained, and by dividing this by the number of pounds turned over to the railroads, the average distance each pound was carried could have been ascertained.

To make absolutely clear what I have stated I shall resort to a simple illustration showing the method which was employed to obtain the average distance each pound of mail is carried and then the method I hold should have been adopted. Let us suppose that there are but five postal routes in the United States, which are represented by the letters of the first column of the subjoined table, that they carry the weights indicated in the second column their full length each day, and that they have

Routes	Average weight of mail carried over en- tire route per day	Length of route	Number of miles one pound is carried
	Pounds	Miles	
A.....	10	10	100
B.....	100	50	5,000
C.....	200	100	20,000
D.....	300	200	60,000
E.....	1000	500	500,000
Totals.....	1610	860	585,100

the lengths indicated in the third column. Let us further suppose that 805 pounds of new matter are thrown upon the railroads each day. At this point the author of the demonstration cited would say, "as the weights carried on all the routes amount to 1610 pounds, and the new matter was but 805 pounds, each pound must have been carried over two routes." He would go on and state that "there are five railroad routes in the United States, and that the total number of miles of these routes is 860, therefore the average length of a route is 860 miles divided by five routes or 172 miles." And he would continue: "As above stated one pound of mail is carried over two routes, and each route averages 172 miles, which make 344 miles as the average haul of a pound of mail."

My own method differs radically from this. By multiplying

the number of pounds carried over each route by the length of the route I obtain the number of miles one pound is carried. These results are given in column four. By adding these products I find that the work done on the five routes was equivalent to carrying one pound 585,100 miles. Now, as by hypothesis 805 pounds of mail were carried on these five routes, we have simply to divide 585,100 by 805 to discover the average distance each pound was carried. This operation gives 726.7 miles, or more than twice the distance obtained by the former method.

The importance of considering the weight of the mails carried as well as the length of the routes is of such great moment that another illustration will be introduced even at the double risk of offending the reader and of performing a work of supererogation. The error pointed out is such a simple one that ordinarily it would be quite sufficient to state it for it to be seen. It is the old question as to whether a simple or weighted average should be used. The error made by the post-office officials is sometimes made in computing average wages, and as the difference between a simple and weighted average can easily be pointed out in the domain of wages an illustration will be drawn from this field. Suppose that a firm has twenty men and five boys in its employ and that the former receive \$3 per day and the latter \$0.50 and that the full force works each day. What is the average wage paid per day by this firm? It certainly is not \$1.75 the average of the *rates* of pay for \$1.75 multiplied by twenty-five, the number of persons employed, gives but \$43.75. This result shows at once that an error has been made, for twenty men who each receive \$3 per day would in the aggregate receive \$60 and five boys who each get \$0.50 per day would in the aggregate earn \$2.50 more, making a grand total of \$62.50 received by the twenty-five persons employed or an average of \$2.50 per day instead of \$1.75, the average obtained by dividing by two the sum obtained by adding \$3 and \$0.50 the rates of pay respectively received by the men and boys. It must be at once apparent that the number of persons employed as well as the rates of wages paid must be considered if the

average wage actually paid be desired and for the same reason the weight of the mails carried over the different postal routes must be taken into consideration as well as the length of the routes if the average distance each pound of mail is carried be sought.

The third paragraph of Mr. Acker's preamble reads as follows: "The post-office statistics show that the rate paid to the railroads for hauling mail matter averages forty (40) dollars per ton per hundred miles, while at the same time, according to Poor's *Railroad Manual*, the rate received by railroads for hauling miscellaneous freight averages but eighty-two (82) cents per ton per one hundred miles, and the rate received by the railroads for carrying passengers (allowing 200 pounds for each passenger and baggage) is about twenty (20) dollars per ton per hundred miles."<sup>1</sup>

It has just been shown that there is no warrant for the statement that the railroads receive forty dollars per ton per hundred miles for the carriage of mail. I should be greatly surprised if they received one third of this sum. Their earnings from freight and passengers are probably about as given. The comparison of mail and freight earnings is valueless because (1) of the unsatisfactory character of the statements of mail earnings and (2) of the radical differences in the character of the service. More will be said upon the latter point later on. It will not be discussed here as it is my desire to valuate the data used by Mr. Acker before examining his methods. Because of the first of the reasons just stated a comparison of mail and passenger earnings cannot be instituted. Mr. Acker's statement of mail earnings is so wide of the truth that nothing will be said of mail and passenger earnings at this point. The discussion of this subject can be profitably delayed until a later day for the Commission on Postal Affairs has in preparation a table showing the earnings per ton per mile from the mail traffic.

The fourth paragraph of Mr. Acker's preamble declares that "the post-office statistics further show that the average rate paid

<sup>1</sup> Testimony, p. 1080.

to the railroads for hauling one hundred pounds of mail matter the length of the average haul (estimated to be 328 miles) is six dollars and fifty-eight cents (\$6.58), while the *Census Report of 1890* shows that the average rate paid to the railroads by the express companies for their average haul (the length of which is not shown by statistics) was but sixty (60) cents per hundred pounds."<sup>1</sup> Nothing further need be said about the worthlessness of the statements of mail earnings. The statements of the earnings of the railroads from the express business cited by Mr. Acker in the preamble appear to be even more inaccurate than his statements of their mail earnings. This is made clear by the testimony of H. S. Julier, general manager of the American Express Company before the Joint Commission of Congress on Postal Affairs. The questions put to Mr. Julier which when not otherwise stated were asked by the chairman of the commission, Senator Wolcott, and Mr. Julier's answers will now be introduced. They will substantiate my statement.

Question. Perhaps, Mr. Júlier, before I go extensively into that [the tonnage carried by the American Express Company during the year 1897] I had better ask you if you have examined the report of the Eleventh Census, so far as the same is made applicable to the express companies.

Answer. I have examined the report.

Q. Can you give the commission some information as to who prepared this, in general as to its accuracy, and any details respecting it that would give any information to the commission as to what reliability can be placed upon it?

A. The American Express Company's figures were furnished by its general auditor. If you will allow me, I will peruse the census report [referring to the report]. I now speak so far as the American Express Company is concerned.

Q. You are testifying generally as to the American Express Company, which, compared with the other large express companies, does about what proportion of the business?

A. It does fully, I should say, one fourth of the business.

<sup>1</sup> Testimony, p. 1080.

Mr. Moody: Of the whole country?

A. Perhaps it might not be one quarter, but nearly that.

Mr. Loud: Much of your business goes—the business you are estimating—through other express companies, too?

The witness: That is true.

By the chairman: You are now testifying so far as the business of the American Express Company is concerned?

A. Yes, sir. The number of waybills, the number of packages carried, the weight per package are all estimated and I might say guessed.

Q. How were they ascertained? Do you know?

A. In talking with our general auditor with reference to this matter, he said that the census commission sent a man over to New York several times—in fact, he came there repeatedly for three months. He was told very explicitly that the American Express Company had no statistics on those points, and it would be absolutely impossible to give accurate information. About a month before the census report was to be published, or, rather, the date fixed for closing the report, he came and said that he must have some information on those points. He was again told that it was absolutely impossible to give anywhere near accurate figures. He said, "Some figures must be given?" "Well, then, all I can do is to make an estimate; I will do the best I can," is what our general auditor replied. He said that he had but a few days in which to prepare the figures, and made the best estimate possible. He did not pretend that they were accurate, not supposing for a moment that they were to be used for the purpose of comparing with mail, simply for the reason that, so far as we are concerned, the figures had no value whatever in our business.

Now, as to the tonnage. It is shown here that the American Express Company carried 570,593 tons. I said to the general auditor: "how do you arrive at those figures?" He replied: "I called upon the superintendents for them." I said: "well, what do they represent? They certainly do not represent the tons we actually carried; that is, gross tons" [each article counting

but once]. He replied : "I don't know anything about that." "Well," I said to him, "the simplest test that I can put those figures to, demonstrates to me that there is a very large duplication there." I made the test to him, and he answered, "Of course." I said further, that if the American Express Company had carried that many tons of freight from initial points and earned no more money than they had that year they would have gone into the hands of a receiver. I then said to him : "it is quite evident, to my mind, that the superintendents, in giving you those figures, have taken the gross tonnage carried over each line of road and over each division of roads with which we have separate contracts, and aggregated the whole." He then brought me papers upon which these figures were based, and it was as clear as daylight that I was correct.

Q. Just explain to the commission how they would be duplicated.

A. In 1890 a very large proportion—I might say 95 per cent. of our roads were paid on the tonnage basis, and, of course, each road—the gross tonnage carried over each road—had to be computed separately. The tonnage going from Boston to Chicago would be reported from Boston to Albany, Albany to Buffalo, Buffalo to Chicago; and, if it was going beyond Chicago, it would again be reported over the Chicago and Northwestern or the Burlington, as the case might be; so over each of the separate roads the tonnage would be reported, and the sum total of the gross weights as carried over each separate road represents the weights which appear in the census report.

Q. That is to say, you had a report from the Boston office showing the tonnage billed from there, and you had the same tonnage reported at Albany, and the same tonnage reported at Buffalo, and again at Chicago, if it went west.

Mr. Chandler: On through matter?

The Chairman: Yes, sir.

The Witness: Now, I might say this: take the New York Central system, for instance, at that time; it would be possible for a hundred pounds of freight to be reported five different times.

Mr. Allison: On a single road?

A. Yes, sir; because the contracts were separate.

By the Chairman: Can you give the commission any sort of estimate or opinion as to what extent that estimate of tonnage is exaggerated?

A. The best figures that I can make show that this tonnage must be cut in two first, and not less than 10 per cent. more of it taken off for transfers of matters received from other companies. Forty per cent. certainly is the highest proportion of those figures that we carried.

Q. You are unable to state, I suppose, as to whether that is true of other companies?

A. Well, from looking over the reports, I should say it must be the same.

Q. Then you would say that if 60 per cent. were deducted from those figures that they would represent fairly the tonnage of the express matter?

A. I should think it would represent fully the amount of tonnage carried.

Mr. Moody: In 1890?

A. In 1890. I should rather think that 33½ per cent. would be better, but 40 per cent. would certainly, in my judgment, be right.

\* \* \* \* \*

Q. Now, as to [the length of] the haul?

A. It is a most difficult thing to arrive at; in different sections of the country it varies. In the Eastern and New England States I should place it at about 100 miles, possibly 125 miles; in the Central States it would be a little more, and in the Western States it would probably run from 175 to 200 miles.<sup>x</sup>

It was shown by me that we have no statistics of value of the cost to the government of hauling the mail. It was made clear that the statistics commonly used are grossly inaccurate. By the testimony of Mr. Julier it is apparent that the information concerning the express business contained in the Eleventh Census

<sup>x</sup> Testimony, p. 757 *et seq.*

is also wholly unsatisfactory. The real weight carried, each article counting but once, was very much less than the weight announced, for, in making up the weight, the matter was reweighed as it passed from railroad to railroad, and often when it passed from one division of the same railroad to another. If a comparison should be made of mail and express, it would be fairer to use the aggregate of the mail matter carried on all the postal routes of the United States, instead of the total weight handled by the Post-Office Department, each piece counting but once. If this were done, the mail, as was the express matter, would be reweighed every time it was turned over to a new system, and often when it passed from one division of a railroad to another.

A comparison of railroad earnings from mail and express is unsatisfactory for another reason. The average distance mail is carried appears to greatly exceed the average distance express matter is carried. The average distance the mail is transported, according to the statistics furnished by the Post-Office Department, is 328 miles, but the actual distance is probably much greater. Mr. Julier estimated that the average distance express matter is carried in the eastern and New England states to be about 100 miles, possibly 125 miles, in the central states a little further than this, and in the western states from 175 to 200 miles. Mail matter is thus probably carried much more than twice as far as express matter.

The last paragraph of the preamble submitted to the commission on postal affairs by Mr. Acker in behalf of the National Board of Trade reads as follows: "the department now pays, in addition to the above rates [viz., \$40 per ton per hundred miles or \$6.58 per one hundred pounds for the average distance mail is carried] an extra charge, averaging six thousand two hundred and fifty (6250) dollars each year, for the use of each special mail car, notwithstanding the fact that these cars cost only from two thousand five hundred (2500) dollars to four thousand (4000) dollars each to construct, and notwithstanding the fact that the additional cost to the railroads in using these cars over

the ordinary apartment cars, which they otherwise would use, consists mainly in hauling a slightly heavier weight.<sup>1</sup> In his oral testimony before the postal commission Mr. Acker, while explaining how he obtained the rates received by the railroads, said : " Post-office statistics show that the rate paid to the railroads for hauling mail matter averages \$40 per ton per 100 miles. . . . This statement is verified by the testimony of the General Superintendent of Railway Mail Service on page 134 of *Senate Report No. 991*, in which it was shown that \$34,754,742.69 was paid to the railroads for carrying 528,389,069 pounds of matter an average distance of 328 miles, thereby showing the cost of hauling 1 pound of mail a distance of 328 miles was 6.58 cents or \$131.60 per ton."<sup>2</sup> An examination of page 134 of *Senate Report No. 991*, LV Congress, second session, reveals the fact that the \$34,754,742.69 paid to the railroads for carrying the mail includes the sum (of \$3,770,138.17) paid to the railroads for cars furnished. There is therefore no *extra* charge in addition to the rates Mr. Acker introduced of \$6250 per year for each full sized railway post-office (car) furnished. It is difficult to understand how Mr. Acker made this error of duplication, for the items, there were only three, which combined aggregated \$34,754,742.69 paid to the railroads, were clearly presented.

In his oral testimony before the postal commission Mr. Acker several times spoke of the compensation given the railroads for furnishing full-sized railway post-office cars as a rental.<sup>3</sup> And many others have looked upon the payment for cars in the same light. It is often urged that the railroads should be paid no more for the use of post-office cars than the cost of maintaining and caring for them and a fair return upon their original cost. Such payment would be just if they were stationary post-offices and the government provided trackage for them. But they are not stationary post-offices, and the compensation paid for them must be regarded as in part a payment for hauling them with their load and the railway postal clerks in them. It was so considered when first granted. This additional compensation was

<sup>1</sup> Testimony, p. 1080.

<sup>2</sup> Testimony pp. 1082, 1083.

<sup>3</sup> Testimony, p. 1090 *et seq.*

made because Congress recognized that the separation of the mail in the cars necessitated the devotion of an unusual amount of car space to a given weight of mail. On this point Senator Mitchell said, in speaking for the subcommittee of the Select Committee on Transportation Routes to the Seaboard, which had under investigation the transportation of mail, that "soon after the establishment of the post-office car service it became evident that the law of 1845, under which the payment to the railroads for carrying the mail was based upon weight, did not provide for the post-office car service, the *space occupied*, instead of the *weight carried*, being the proper measure of the value of that service."<sup>1</sup> In other words, it was recognized by this committee that a wholly disproportionate amount of dead weight, in the form of a car with its fittings, is hauled for a given weight of mail.

In early days the mail was carried in closed pouches in baggage cars, and the compensation was based almost solely upon weight. A single form of payment continued for some years after the railway post-offices were introduced, but Congress finally recognized the justice of the contentions of the railways and allowed those carrying the mails in postal cars additional pay for the extra service rendered in providing sufficient space for the distribution of the mails in the cars. This statement is only in part true. No extra pay is allowed for apartment-car service, and this in the face of the fact that the mail is separated quite as minutely in the apartment as in the exclusive mail cars. The discrimination, as stated by Mr. Acker, has no logical basis. But whether both should be paid for, or neither as contended by Mr. Acker, depends upon whether the compensation in the aggregate is excessive or not.

It may not be going too far afield to explain very briefly why mail requires so much space, notwithstanding a great amount of weight can be put away in a small compass.<sup>2</sup> It is due to the fact that the work formerly done in the post-office proper is now

<sup>1</sup> *Senate Report No. 478*, p. 8, XLIII Congress, first session. The italics appear in the report.

<sup>2</sup> Mr. James E. White, General Superintendent of the Railway Mail Service, testified before the Senate Committee on Appropriations, on April 22, 1898, that "it is

almost wholly done in the railway post-offices. The work of separation is now performed in quarters provided by the railways instead of in the quarters provided by the government. The separation is made in the cars to expedite the mails, and is so effective that a letter now reaches its destination as quickly as a passenger starting from the same place at the same time. The long delays in what were known as the distributing post-offices are now wholly obviated with vast saving of annual expenditure to the government. The shifting of the change of the place of separation has gone so far that on all routes of any importance the mail is separated in cars or apartments of cars, and on the important routes the mail is not only distributed for the cities, but in many cases it is actually made ready for the carriers and substations of these cities. But the end has not even yet been reached, for the postmaster-general recently said, "it is the intention eventually to absorb all the work of city distribution into the railway mail service whenever the mails can be expedited thereby."<sup>1</sup> It is this minute separation in the cars that requires so much space. The clerks must have room enough to work effectively. Some idea of the space required may be inferred when it is known that on the arrival of the great mail trains in Chicago in the morning the letter mail for the business portion of the city is actually ready for the carriers, and the letters for the remainder of the city are sorted and ready to go at once to their respective stations. Chicago alone thus requires about 175 separations, which means sufficient space to hang up 175 pouches with their mouths wide open so that the mail can easily be thrown into them from a distance.

The first paragraph of the preamble reads as follows: "the law determining the rates for hauling mail matter by rail has not been modified for twenty years, notwithstanding the fact that during that period, according to Poor's *Railroad Manual*, freight rates have declined about thirty-five (35) per cent., and passenger estimated that the average weight of mail carried in a sixty-foot postal car is 4000 pounds daily." *Senate Report No. 991*, p. 133, LV Congress, second session.

<sup>1</sup> *Report of the Postmaster-General*, 1895, p. 398.

rates have declined about seventeen and one half ( $17\frac{1}{2}$ ) per cent., and notwithstanding the fact that after the daily average weight of 5000 pounds is reached the same rate is allowed per ton for hauling 300,000 pounds daily as is charged for only 2000 pounds."<sup>1</sup> There are three implications in this section (1) that the rates have not fallen because the law fixing them has not been modified in twenty years, (2) that the rates paid for the transportation of mail should have been reduced, for there has been a decline in passenger rates and an even greater decline in freight rates, and (3) that the sliding scale of payments should be extended beyond the 5000-pound limit.

It appears to be here contended that mail earnings should have been reduced hand in hand with freight and passenger earnings. If the mail pay was fair in 1878 and if the mail service has not been improved more rapidly than the freight and passenger service, this position would appear to be well taken. But these assumptions are not in consonance with the facts. The rates established by the act of 1873 were accepted with great reluctance. After the reductions of 1876 and 1878 they were considered so far from remunerative that the railroads felt obliged to remove all trains run primarily to expedite the mails. Thus the rates were not considered fair in 1878. It must also be kept in mind that no other service rendered by the railroads has been improved so rapidly as the mail service, both in the matter of speed and frequency. This is so well known that it need not be elaborated.

But it must not be inferred because stress has been laid upon the great improvements made in the mail service that there has been no decline in the rates paid to the railroads. Although there has been no reduction made by law (or, accurately by a new law) since 1878, the compensation given the railroads for carrying the mail has fallen very rapidly. This has been brought about by the sliding scale introduced by the act of 1873. The rate of compensation granted decreases rapidly with an increase of weight. The pay for transporting mail on roads that carry

<sup>1</sup> Testimony, p. 1080.

200 pounds per day was fixed at 117 cents per ton per mile, while that for carrying mail on roads that transport more than 5000 pounds per day was fixed at but 5.8 cents for every ton in excess of 5000 pounds, or less than one-twentieth of the first rate. The wholesale principle of fixing prices never received more drastic application. During the last twenty years the weight of the mail carried on practically all routes has increased rapidly. This increase of weight, through the operation of the statute, has brought about a great reduction in the rates of compensation. It thus appears that the cause (*i.e.* the increase in tonnage) which in the main explains the decline of freight and passenger rates has also brought about a great reduction in the average rate of pay received for the transportation of mail. I venture the opinion that the average rate of earnings of all the railroads of this country from the transportation of mail has fallen very much more than the average rate of earnings from passenger business, and a little more than the average rate from freight. Some data are already at hand to show that this is true and these will be introduced so far as it is possible to do so within reasonable compass and then the point will be passed over for the Joint Congressional Commission on the Postal Service as has already been stated has employed a statistician expert who will ascertain the rate paid the railroads per ton per mile by years since 1873. The statement I have just made as to the relative decline of mail, freight and passenger earnings is in part based upon a table compiled by the Second Assistant Postmaster-General showing the decline in the rate of pay on forty postal routes from 1881 to 1897<sup>1</sup> and in part upon data furnished by the Chicago and North-Western, the Chicago, Burlington and Quincy and the Union Pacific railway companies. In the subjoined table the relative decline in rates on these three large systems is set forth.<sup>2</sup>

<sup>1</sup>This table is so large that it will not be introduced. It may be found in *Senate Report No. 991*, LV Congress, second session, pp. 126, 127.

<sup>2</sup>For the data of the Union Pacific railway company see Testimony, p. 599; the "North-Western," *ibid.*, p. 442, and the "Burlington" see *Changes in the Rates of Charge for Railway and other Transportation*, pp. 20, 66. The mail earnings of the last named company were obtained from its officials.

Companies	Decline of freight earnings per ton per mile	Decline of mail earnings per ton per mile	Decline of pas- senger earnings per passenger per mile
	Per cent.	Per cent.	Per cent.
Decline on the Union Pacific 1888 to 1897	15.80	23.40	8.10
Decline on the Burlington 1879 to 1897...	29.37	55.26	13.69
Decline on the Northwestern 1879 to 1897..	36.54	39.73	26.85

This exhibit affords some basis for the contention that mail earnings since 1879 of all the railroads of the United States have fallen more rapidly than have the average earnings received from freight and passenger business.

In the first paragraph of the preamble of the National Board of Trade it is implied that the scope of the sliding scale should be extended. As the law now stands the railroads receive a fixed sum<sup>1</sup> (5.8 cents per ton per mile) for every ton carried after the first 5000 pounds. As the first 5000 pounds are paid for at the rate of 18.7 cents per ton per mile the much lower rate of pay for the tonnage in excess of this weight causes a rapid decline in rates up to weights of 50,000 pounds, the rate paid on the basis of weight for 20,000 pounds being 9 cents per ton per mile and for 50,000 pounds but 7 cents or much less than one half the rate received for the first 5000 pounds. For greater weights than 50,000 pounds the rates decline slowly. It is contended that the reductions should not stop at the 5000-pound point, but should continue indefinitely in consonance with the wholesale principle. In opposition to this point of view it may be asserted that the operation of the established sliding scale operates with great force up to weights of 50,000 pounds and that beyond this point it should not operate with equal force, for there are limitations to the application of the wholesale principle of fixing prices, and on routes over which a greater weight is daily carried a special service in point of speed and frequency of service is maintained. In a general way it may be said that until a weight of 50,000 pounds is reached the mail business is an adjunct of the passenger business, but when this weight is exceeded the

<sup>1</sup>On the basis of weight.

mail service, as the weight increases, is more and more specialized and quickly develops into a service of an entirely different order in both speed and frequency. The advent of the new order is marked by the appearance of the fast-mail train. These trains are run at favorable hours at very high rates of speed wholly or almost wholly to expedite the mails.

The second section of the preamble is as follows:

Since 1885 the mileage of the star routes has increased fourteen and one half ( $14\frac{1}{2}$ ) per cent., and the average weight of mail matter materially increased, while figures show that the total cost of hauling has slightly decreased, while during the same period the mileage of railroad routes has also increased forty-three and one third ( $43\frac{1}{3}$ ) per cent.; but the cost of hauling also increased from fourteen million seven hundred and fifty-eight thousand four and ninety-five dollars (\$14,758,495) to thirty-four million seven hundred and fifty-four thousand seven hundred and forty-two dollars and sixty-nine cents (\$34,754,742.69), or an increase of over one hundred and thirty-five (135) per cent.<sup>1</sup>

The forms of service here compared are so different that nothing of value can result from their contrast, but as no attempt is now being made to pass upon Mr. Acker's methods of determining what would be fair compensation to the railroads we shall proceed at once to the valuation of the data. There has been the increase in the mileage of the star routes noted by Mr. Acker, but I know of no statistics which would support his contention that the weight of mail matter upon the star routes has materially increased.<sup>2</sup> On the contrary there are very good reasons for supposing that the weight carried over the star routes is much less now than in 1885, for the character of these routes has very largely changed and because there has been but little increase in the rural population during the last decade and a half. During the last two decades the star service has been transformed. The

<sup>1</sup> Testimony, p. 1080.

<sup>2</sup> In reply to a call for the statistics of mail carried over star routes, Second Assistant Postmaster-General W. S. Shallenberger, wrote: "You are correct in your supposition that the department does not know the weight of the mail carried by star routes. Answering your other inquiries: the department has no statistics bearing directly upon the subject, and therefore is not able to state to what extent, if any, the weight of mail carried by star routes has increased since 1885."

long routes connecting important centers, of which there were many in the West, have been supplanted by railroads. The change that has taken place was noted long ago by Second Assistant Postmaster-General Thomas J. Brady, who said in 1880: "The star service, viewed as the principal means of mail transportation is, of course, like all primitive modes of intercourse, doomed to give way and disappear before the steady march of the locomotive. Each year the number of great star routes will become less and the distance traversed by them shortened."<sup>1</sup> From 1885 to 1898 the mileage of these routes increased but 14.6 per cent, while the number of routes increased 76 per cent. thus showing that the average length has greatly decreased.<sup>2</sup> The star mileage is now almost wholly made up of short stubs connecting railway stations with the rural post-offices. The significance of this change from long stage lines connecting considerable bodies of people to routes of a few miles in length connecting the railway and the country post-office is found in the fact that over the former large weights of mail were carried while over the latter the weight is insignificant.

As stated by Mr. Acker the total cost of carrying the mail on the star routes has slightly decreased since 1885, and this is as it should be. For the reasons that have just been introduced the cost of this service should have declined for the long routes in the far West where service was exceedingly expensive have been very largely supplanted. At one time there was a single route that cost the government at the rate of \$1,750,000 per annum.<sup>3</sup> It is also a matter of common notoriety that the railway mail service has constantly improved, while the star route service has as constantly deteriorated until the former has become a source of pride and the latter an object of humiliation. The star route service should not be used as a basis of comparison, for it is now very often performed for less than cost, the

<sup>1</sup> *Report of Postmaster-General*, 1880, p. 76.

<sup>2</sup> *Report of Postmaster-General*, 1885, p. 241 and *ibid.*, 1898, p. 290.

<sup>3</sup> Wells Fargo & Co. were paid at this rate for carrying the mail between the termini of the Union Pacific and Central Pacific railroads. *Ibid.*, 1868, p. 7.

loss being borne by poor and ignorant men of whom advantage has been taken.<sup>1</sup> On the two points just discussed, the postmaster-general in his latest report expressed himself most emphatically. He said, "As a general proposition, a reduction in the cost of conducting the public business would seem to be a desirable end to attain. But it becomes a serious question whether this has not been carried so far in respect of star routes as to impair the efficiency of the service. Certainly the present system of speculative bidding is attended with evils which are discreditable to the government. . . . I believe that a considerably larger sum for star transportation would be well expended if it resulted in improved equipment, as many of the horses and vehicles now used in carrying the mails present such a dilapidated and disreputable appearance as to be a strong argument in condemnation of the present system."<sup>2</sup> Those who have had no opportunity to contrast the railway mail with the star route service can gain an idea, although a wholly inadequate one, of the superiority of the former over the latter by comparing the railway mail with the wagon service of their own city.

The mileage of railway routes has increased a little more than was stated by Mr. Acker. Instead of increasing  $43\frac{1}{3}$  per cent. it increased 44.4 per cent., or from 121,032 miles in 1885 to 174,777 miles in 1898. Mr. Acker gives the mileage in the latter year as 167,755 miles but this statement is incorrect. This will be quickly seen by anyone who will read pages 301 and 630 of the *Reports of the Postmaster-General* for 1898. On the latter page, which is the reference cited by Mr. Acker, the following statement appears: "The miles of railroad covered by full railway post-office lines was 42,656.99; by apartment railway post-office lines, 113,776.28; by electric and cable car lines, 379.47; by steamboat lines, 10,942.47; making a total mileage of 167,755.21 covered by railway post-office service." No one should have been misled by the erroneous final statement and especially

<sup>1</sup> For a description of how this is done see *Report of Postmaster-General*, 1898, pp. 291, 292.

<sup>2</sup> *Ibid.*, pp. 291, 293.

not as almost immediately the following statement appears : "In addition to this there was a closed-pouch service on 18,970.38 miles of railroad."<sup>1</sup>

TABLE SHOWING INCREASE OF WEIGHTS ON CERTAIN POSTAL ROUTES.<sup>2</sup>

Routes	1885	1898
	Average number of pounds carried over the whole route each day	Average number of pounds carried over the whole route each day
Boston-Albany .....	38,986	111,105
New York-Buffalo .....	99,901	250,449
New York-Philadelphia.....	136,401	309,294
Philadelphia-Pittsburgh.....	91,679	183,876
Buffalo-Chicago.....	69,142	153,360
Chicago-Burlington .....	54,621	120,030
Burlington-Union Pacific Transfer.....	37,031	86,746
Union Pacific Transfer-Ogden.....	23,990	65,394

The absurdity of comparing the star route and railway service on the basis of aggregate lineal mileage simply, must appear to anyone, for speed, weight and accommodations furnished are wholly neglected. Upon the whole it may be safely said that the speed of conveyance on star routes has actually decreased, for the great stage lines, over which the mails were carried at a high rate of speed considering the mode of conveyance, have practically all disappeared. This as is well known is in striking contrast with the railway mail service where the speed of trains has been constantly accelerated. As has already been stated the average weight of mail carried on the star routes has probably decreased. This is also in striking contrast with the railway mail service where the weight has increased by leaps and bounds. Some idea

<sup>1</sup>The aggregate of the railway mileage as here given is 175,403.65 miles but I prefer to use the mileage I have used as it covers the entire mileage upon which compensation has been adjusted.

<sup>2</sup>This information was obtained from the reports of the postmasters-general, Table H.

of the increase of weight carried may be gained by an examination of the table opposite which covers several of the leading railway routes.

This table makes it apparent that there has been a very great increase in the weight of the mail carried by the railroads. The increase could be shown more fully, but the best presentation that could now be made would only be illustrative, so nothing more will be attempted, as in a short time the report of the Joint Congressional Commission on Postal Affairs will be printed, and it may be expected to show the increase in the ton mileage carried by the railroads in the aggregate for a long series of years. As has already been stated, there has been in all probability only a slight, if any increase at all, in the ton mileage carried on the star routes. No information has been collected by the Post-Office Department that would make a positive statement to this effect possible, but there is very good indirect evidence that points to this conclusion. It is a patent fact that during the last two decades the railroads have reached all considerable bodies of population. From this it follows that the star route service has been progressively restricted to the rural districts. During the last two decades the increase of population in this country has been in the urban centers. This is to say, the cities, towns, and villages have increased in population much more rapidly than the agricultural sections. During the decade ending with the year 1890 the urban population increased twice as rapidly as the rural, and as the same forces have remained at work, it may be assumed that at least the same rate of increase has been maintained during this decade.<sup>1</sup> From these facts it seems fair to assume that there has been no increase in the weight carried by the star routes, but that there has been a very heavy increase in the weight transported by the railroads.

The compensation received by the railroads for carrying the mail has not increased anywhere near so rapidly as represented. In the preamble it stated that the railroads received \$14,758,495 in 1885. This is the sum they were paid for special facilities

<sup>1</sup> *Eleventh Census, Report on Population*, part I, p. lxix.

and on the basis of weight,<sup>1</sup> but this amount does not include the payment for railway post-office cars. The total sum paid the railroads for all forms of service during the fiscal year 1885 was \$16,627,983,<sup>2</sup> not \$14,758,495, as stated in the preamble. Before appearing before the postal commission in behalf of the National Board of Trade Mr. Acker discovered the error just pointed out, but in attempting to correct it made another. Before the commission he stated that the cost of transportation and railway post-office cars for 1885 was \$17,336,512. This amount was not paid during 1885; it was paid in 1886.<sup>3</sup> In citing the amount received by the railroads during 1898 Mr. Acker leaves the reports of the postmasters-general for *Senate Report No. 991* on the mail service, and on page 134 finds that the railroads received \$34,754,742 for all forms of mail service during the fiscal year 1898. This sum is larger than that reported by the postmaster-general, namely, \$34,379,226.98,<sup>4</sup> which is the sum that was actually expended. As the statements for both 1885 and 1898 made by Mr. Acker of the aggregate compensation received by the railroads are inaccurate, the contention made in the preamble that there was an increase of 135 per cent. in the compensation received by the railroads from 1885 to 1898 is incorrect. The actual increase was 106 per cent., if the sums withheld from the Pacific railroads be left out of consideration, and but 94 per cent. if these sums be included.

The data contained in the preamble and resolution presented to the Joint Congressional Commission on Postal Affairs by Mr. Finley Acker have now been valuated. It is believed that it has been conclusively shown that, with a very few unimportant

<sup>1</sup> *Report of the Postmaster-General*, 1898, p. 302.

<sup>2</sup> *Report of the Postmaster-General*, 1898, p. 302. If the sums withheld from the Pacific railroads for the transportation of mail during 1885 be included, the total expenditure for railroad service was \$17,968,209. For the sums withheld from Pacific railroads see *Report of the Postmaster-General*, 1885, p. 905.

<sup>3</sup> *Ibid.*, 1898, p. 302.

<sup>4</sup> *Ibid.*, p. 16. To obtain the total expenditures for railway mail service \$515,263.42 should be added, for this sum was withheld from the Pacific railroads during the fiscal year 1898. *Ibid.*, p. 302.

exceptions, the data used are very inaccurate. All the principal arguments that the compensation granted the railroads for carrying the mail is excessive are grounded on the assumption that the railroads on the average receive forty cents per ton per mile for transporting the mail. This assumption is merely an estimate based upon the most unsatisfactory data. If the reasonableness of the pay granted the railroads is to be approached from the comparative standpoint, it becomes necessary first of all to obtain an accurate table of railroad earnings per ton per mile from the mail business. A table covering the period from 1873 is now being prepared for the use of the Commission on Postal Affairs, and it is hoped that it will be embodied in its final report. While it is impossible, with the data now at hand, to prepare a table entirely satisfactory,<sup>1</sup> it is possible to prepare one that will serve as a good working basis, for we know the average weight carried over the full length of each postal route each day and the compensation granted for the service.

GEORGE G. TUNELL.

CHICAGO.

<sup>1</sup>This follows because of the system of weighing now in vogue. The mails are weighed but once in four years, and the weight is ascertained three or four months before the beginning of the four-year period to which it applies, and no corrections are made. From this it follows that the railways are not given credit for the full weight they carry.